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SUSTAIN

Sustainable national transport planning: Managing multiple objectives and criteria

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Sustainable transport planning necessitates a rethinking of traditional assessment based primarily on cost-benefit analysis (CBA) used for a systematic quantification and comparison of the various benefits and costs generated by a transportation project or policy. Generally, CBA has been found less useful for the handling and assessment of multiple, often conflicting objectives or criteria like environmental or social issues intrinsically difficult to quantify. Therefore, it is necessary to broaden the assessment and the decision making process beyond merely economic factors. The research project on Sustainable National Transport Planning (SUSTAIN) seeks, among other things, to develop a flexible decision-support model to assess the sustainability of transport projects and policies, the SUSTAIN framework model.

The SUSTAIN framework model consists of two parts, namely decision conferences and an Excel-based software model. The latter employs the use of CBA, multi-criteria decision analysis and risk analysis techniques enabling the assessment of non-quantifiable impacts within a decision support context. The concept of a decision conference is introduced as relevant for dealing with the strategic elements not included in the CBA. One important part of the assessment is the selection of criteria to be included and this aspect will be examined by an appraisal study of the Rail Baltica corridor. In the study various alternatives are appraised with an explicit consideration of each alternative's sustainability performance.